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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,627	02/10/2006	Seijiro Tomita	80465(302770)	9254

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EXAMINER

ANYIKIRE, CHIKAODILI E

ART UNIT	PAPER NUMBER
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2621

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/535,627	Applicant(s) TOMITA, SEIJIRO	
	Examiner CHIKAODILI E. ANYIKIRE	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This application is responsive to application number (10535627) filed on February 10, 2006. Claims 1-17 are pending and have been examined.

Information Disclosure Statement

2. Acknowledgement is made of applicant's information disclosure statement.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-16 rejected under 35 U.S.C. 102(b) as being anticipated by Kameyama (US 6, 198, 484).

As per **claim 1**, Kameyama discloses a stereoscopic video signal generation circuit for supplying a stereoscopic video signal to a three-dimensional display, wherein the three-dimensional display, displaying two images in the left eye and the right eye with binocular parallax and then selectively retrieving one of the two images in one of the left eye and the right eye and other in other of both eyes, forms a stereoscopic

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image to show an observer by taking advantage of binocular parallax, the stereoscopic video signal generation circuit comprising:

an information retrieving means (Fig 2 element 19) for retrieving as control information for controlling a display of each image video information including crosspoint (convergence point) information on a distance from a camera to a crosspoint of an optical axis of a left subject and an optical axis of a right subject when each of left image and right image is produced (column 10 lines 6 – 8; Kameyama teaches a model management means that receive data related to the stereoscopic image to be displayed from a control means (Fig 2 element 10)); and

an offset setting means (Fig 2 element 22) for offsetting a left-eye image and a right-eye image relative to each other according to the control information to adjust a stereoscopic depth of the image displayed (column 9 lines 54 – 57 and 63-65; teaches adjusting the right and left images to reduce a fatigue and further produces a scaling of a depth direction).

As per **claim 2**, Kameyama discloses a stereoscopic video signal generation circuit according to claim 1, wherein the information retrieving means retrieves as the video information at least one of information comprising:

applicable screen size information as video information suited for reproducing the stereoscopic image;

applicable viewing distance information as the display information on a distance from an observer to a screen suited for the observer to see the image as it is reproduced,; and

display information as the video information involving viewing distance information on a distance from the observer to the screen of the three-dimensional display (column 9 lines 35 -39 and lines 45 – 67; Kameyama teaches that various video information is supplied to model management unit including display information such as the coordinate system of the 3D space and the viewing distance, but the examiner notes that only one is required since the applicant states “at least one”),

wherein the offset setting means offsets the left-eye image and the right-eye image relative to each other according to one or more of the optimal screen size information and the applicable viewing distance information to adjust the stereoscopic depth of the image displayed (column 9 lines 54 – 57 and 63 – 65).

As per **claim 3**, Kameyama discloses a stereoscopic video signal generation circuit according to claim 2, wherein the information retrieving means retrieves as the video information, information on a distance between an optical axis of a left-eye camera and an optical axis of a right-eye camera (column 10 lines 47 -54), wherein the offset setting means offsets the left-eye image and the right-eye image relative to each other according to the camera distance information and the crosspoint (convergence point) information to adjust the stereoscopic depth of the image displayed (column 9 lines 54- 57 and 63 – 65 and column lines 1 - 9).

As per **claim 4**, Kameyama discloses a stereoscopic video signal generation circuit according to claim 1, wherein the information input means retrieves information entered about the stereoscopic depth and the offset setting means offsets the left-eye image and the right-eye image relative to each other according to the information entered into the input means to adjust the stereoscopic depth of the image displayed (column 9 lines 54 – 57 and 63 – 65).

As per **claim 7**, Kameyama discloses a stereoscopic video signal generation circuit according to claim 1, wherein the left-eye image and the right-eye image are offset relative to each other by advancing or delaying a horizontal phase between the left-eye image and the right-eye image (column 25 lines 16 – 21; Kameyama discloses a change in horizontal direction according to the offset amount).

As per **claim 8**, Kameyama discloses a stereoscopic video signal generation circuit according to claim 1, wherein, when the left-eye image and the right-eye image are offset, in left and/or right end blanked-out areas of the screen where information of the left-eye image and/or the right-eye image is not displayed, left or right edge portion of the left-eye image and/or the right-eye image near the blanked-out areas is displayed magnified horizontally and vertically (column 20 lines 7 - 15).

Regarding **claim 9**, arguments analogous to those presented for claim 1 are applicable for claim 9.

Regarding **claim 10**, arguments analogous to those presented for claim 2 are applicable for claim 10.

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Regarding **claim 11**, arguments analogous to those presented for claim 3 are applicable for claim 11.

Regarding **claim 12**, arguments analogous to those presented for claim 4 are applicable for claim 12.

Regarding **claim 15**, arguments analogous to those presented for claim 7 are applicable for claim 15.

Regarding **claim 16**, arguments analogous to those presented for claim 8 are applicable for claim 16.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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7. Claims 5-6 and 13-14 rejected under 35 U.S.C. 103(a) as being unpatentable over Kameyama (US 6, 198, 484) in view of Iwamoto et al (US 5,119,189, hereafter Iwamoto).

As per **claim 5**, Kameyama discloses a stereoscopic video signal generation circuit according to claim 1.

However, Kameyama does not explicitly teach further comprising: a left-eye image frame memory for storing the left-eye image and a right-eye image frame memory for storing the right-eye image; wherein the offset setting means has a timing control means for controlling a timing of reading video data from the left-eye image frame memory and/or the right-eye image frame memory, and the timing control means advances or delays the timing of reading the video data from one of the left-eye image frame memory and the right-eye image frame memory with respect to the timing of reading the video data from the other frame memory to offset the left-eye image and the right-eye image relative to each other.

In the same field of endeavor, Iwamoto teaches further comprising: a left-eye image frame memory for storing the left-eye image and a right-eye image frame memory for storing the right-eye image; wherein the offset setting means has a timing control means for controlling a timing of reading video data from the left-eye image frame memory and/or the right-eye image frame memory, and the timing control means advances or delays the timing of reading the video data from one of the left-eye image frame memory and the right-eye image frame memory with respect to the timing of

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reading the video data from the other frame memory to offset the left-eye image and the right-eye image relative to each other (Fig 32; column 15 lines 45 – 63; Iwamoto teaches having memory units for the two different cameras and a synchronization signals and reading signals based on the synchronization).

Therefore, it would have been obvious for one having skill in the art at the time of the invention to modify the invention of Kameyama in view of Iwamoto. The advantage is the ability of the observer to view a stereoscopic image with less fatigue in natural conditions (see abstract).

As per **claim 6**, Iwamoto discloses a stereoscopic video signal generation circuit according to claim 5, further comprising: a stereoscopic image frame memory for storing the stereoscopic image; and a signal selection means for selecting between video data read out from the left-eye image frame memory and video data read out from the right-eye image frame memory and feeding the selected data into the stereoscopic image frame memory (Fig 32; column 15 lines 45 – 63).

Regarding **claim 13**, arguments analogous to those presented for claim 5 are applicable for claim 13.

Regarding **claim 14**, arguments analogous to those presented for claim 6 are applicable for claim 14.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHIKAODILI E. ANYIKIRE whose telephone number is (571)270-1445. The examiner can normally be reached on Monday to Friday, 7:30 am to 5 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272 - 7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/
Supervisory Patent Examiner, Art Unit 2621

/Chikaodili Anyikire/
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